What is claimed is that:

1. A material comprising a polyrotaxane and a polymer, wherein the polyrotaxane comprises a cyclic molecule, a linear molecule which is included in cavities of the cyclic molecule(s) in a skewered manner, and a capping group which is located at each end of the linear molecule to prevent the dissociation of the the cyclic molecule(s), and wherein a part of the polyrotaxane and the polymer is bound to each other through the cyclic molecule.

2. The material according to claim 1, wherein at least a part of the polymers is physically and/or chemically crosslinked.

3. The material according to claim 1 or 2, wherein a weight ratio of the polyrotaxane to the polymer ((polyrotaxane)/(polymer)) is 1/1000 or more.

4. The material according to any one of claims 1 to 3, wherein a backbone chain or side chain of the polymer has at least one selected from the group consisting of a -OH group, a $-NH_2$ group, a -COOH group, an epoxy group, a vinyl group, a thiol group, and a photo-crosslinkable group.

5. The material according to any one of claims 1 to 4, wherein the linear molecule is selected from the group consisting of polyethylene glycol, polyisoprene, polyisobutylene, polybutadiene, polypropylene glycol, polytetrahydrofuran, polydimethylsiloxane, polyethylene and polypropylene.

6. The material according to any one of claims 1 to 5, wherein the linear molecule has a molecular weight of 10,000 or more.

7. The material according to any one of claims 1 to 6, wherein

the capping group is selected from the group consisting of dinitrophenyl groups, cyclodextrins, adamantane groups, trityl groups, fluoresceins, pyrenes, substituted benzenes, polycyclic aromatics which may be substituted, and steroids.

8. The material according to any one of claims 1 to 7, wherein the cyclic molecule has at least one selected from the group consisting of a -OH group, a $-NH_2$ group, a -COOH group, an epoxy group, a vinyl group, a thiol group, and a photo-crosslinkable group.

9. The material according to any one of claims 1 to 8, wherein the cyclic molecule is a cyclodextrin molecule which may be substituted.

10. The material according to any one of claims 1 to 8, wherein the cyclic molecule is a cyclodextrin molecule which may be substituted, and the cyclodextrin molecule is selected from the group consisting of α-cyclodextrin, β-cyclodextrin and γ-cyclodextrin, and derivatives thereof.

11. The material according to any one of claims 1 to 10, wherein the cyclic molecule is α-cyclodextrin which may be substituted, and the linear molecule is polyethylene glycol.

12. The material according to any one of claims 1 to 11, wherein the linear molecule has the cyclic molecule(s) included in a skewered manner at an amount of 0.001 to 0.6 of a maximum inclusion amount, which is defined as an amount at which the cyclic molecules can be included at maximum when the linear molecule has the cyclic molecules included in a skewered manner, and the amount at maximum is normalized to be 1.

13. The material according to any one of claims 1 to 12, wherein the polymer and the cyclic molecule in the polyrotaxane are chemically bound each other by a crosslinking agent.

14. The material according to any one of claims 1 to 13, wherein the crosslinking agent has a molecular weight of less than 2,000.

15. The material according to any one of claims 1 to 14, wherein the crosslinking agent is selected from the group consisting of cyanuric chloride, trimesoyl chloride, terephthaloyl chloride, epichlorohydrin, dibromobenzene, glutaraldehyde, phenylene diisocyanates, tolylene diisocyanates, divinylsulfone, 1,1'-carbonyldiimidazole and alkoxysilanes.

16. The material according to any one of claims 1 to 15, wherein the material is selected from the group consisting of optical materials, contact lenses, biomaterials, medical materials, tire materials, application agents and adhesives.

17. A method for preparing a material which comprises polyrotaxane and a polymer comprising the steps of:

a) mixing the polymer and the polyrotaxane which comprises a cyclic molecule, a linear molecule which is included in cavities of the cyclic molecules in a skewered manner, and a capping group which is located at each end of the linear molecule to prevent the dissociation of the cyclic molecules;

b) physically and/or chemically crosslinking at least a part of the polymer; and

c) binding the at least a part of the polymer and the polyrotaxane through the cyclic molecule(s).

18. The method according to claim 17, wherein at least part

of the polymer is chemically crosslinked in the step b).

19. The method according to claim 17 or 18, wherein the step c) is carried out after the step b).

20. The method according to claim 17 or 18, wherein the step c) is carried out prior to the step b).

21. The method according to claim 17 or 18, wherein the steps b) and c) are carried out at the substantially same time.

22. A method for preparing a material which comprises polyrotaxane and a polymer comprising the steps of:

a) mixing a monomer constructing the polymer and the polyrotaxane which comprises a cyclic molecule, a linear molecule which is included in cavities of the cyclic molecules in a skewered manner, and a capping group which is located at each end of the linear molecule to prevent the dissociation of the cyclic molecules;

b) polymerizing the monomer to form the polymer;

c) physically and/or chemically crosslinking at least a part of the polymer; and

d) binding the at least part of the polymer and the polyrotaxane through the cyclic molecule(s).

23. The method according to claim 22, wherein at least part of the polymer is chemically crosslinked in the step c).

24. The method according to claim 22 or 23, wherein the steps b) and c) are carried out at the substantially same time.

25. The method according to any one of claims 22 to 24, wherein the steps c) and d) are carried out at the substantially same time.

26. The method according to any one of claims 22 to 25, wherein the steps b), c) and d) are carried out at the substantially same time.

27. The method according to claim 22 or 23, wherein the step d) is carried out prior to the step c).

28. The method according to claim 22 or 23, wherein the step d) is carried out after the step c).